Maine Gasoline Stations

Model Facility Guide

THE PROGRAM

The Environmental Leader Program is a voluntary effort developed by the Maine Department of Environmental Protection, in consultation with the Maine Oil Dealers Association and independent gasoline station owners. The program:

- **Acknowledges** gasoline station owners who achieve compliance with applicable environmental regulations administered by the Department through designation as an "Environmental Leader"

- **Compiles** environmental regulations most commonly applicable to gasoline stations into simplified booklets for easy reference, and

- **Encourages** station owners to go "beyond compliance" whenever possible, allowing the owner to truly become a Maine Environmental Leader.

The program is designed to help increase the station's customer base by attracting consumers who are likely to support a business that is committed to environmental excellence.

HOW IT WORKS

This guide summarizes the Department of Environmental Protection statutes and regulations most commonly applicable to gasoline stations, as of March 2003. It is intended as a reference guide, but not a substitute for a more in-depth review of the statutes and regulations cited. As a summary, it does not include all of the applicable legal requirements. Depending on your type of business, additional regulations and statutes may apply.

Each section of this guide summarizes the major requirements of the statutes and regulations that apply to gasoline stations and provides a checklist for facility owners and operators to use to help ensure they are meeting these requirements. Also included are helpful suggestions that the facility owners and operators can use to reduce pollution and go "beyond compliance."

WHAT TO DO

REVIEW THIS GUIDE: This guide provides an easy reference to environmental regulations most commonly of concern to Maine gasoline stations. A separate reference guide is also available for automotive repair shops by calling DEP's Small Business Technical Assistance program at 1-800-789-9802 or 287-8550. The repair shop guide contains sections on degreasers, floor drains, waste oil, filters, antifreeze, rags, batteries, CFC refrigerants, and tires.

APPLY: If you are interested in the Environmental Leader Program, complete the self-audit checklists that pertain to your operation. If you comply with all applicable regulations, complete the application form below and submit it to the Department. Note: All problems must be corrected whether or not you decide to participate in this voluntary program because (a) it's the law and (b) your compliance helps keep Maine's environment clean. This guide contains DEP phone numbers for you to call if you need assistance.

SITE VISIT: The Department will then contact you to arrange a visit to your facility to verify your findings and provide you with assistance in correcting any problems discovered. Please consult the Enforcement/Compliance Section on the last page of this guide for further details.

WHAT YOU GET

When you achieve compliance, you will be awarded a package of promotional materials designed to help you expand your customer base, including:

- A striking **Environmental Leader** flag for you to display to your customers;
- **Environmental Leader** decals for display on your pumps;
- A sample press release package, including the **Environmental Leader** logo, that you can submit to your local newspaper or use in advertisements to promote your accomplishment and commitment to environmental excellence; and
- Recognition including an **Environmental Leader** Certificate suitable for framing and your name added to our web site as achieving **Environmental Leader** status.

If you wish to participate in the **Environmental Leader** program, please complete and mail the application form to:

Small Business Technical Assistance Program
Office of Innovation and Assistance
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

If you have questions call 1-800-789-9802 or 287-8550.

_____#

Gasoline Stations Application Form

Facility Registration Number
(found on DEP underground tank registration)

_____

Facility Name | Company Name

_____

Contact Person | Title

_____

Street Address | Town | State | Zip

_____

Mailing Address (if different) | Town | State | Zip

_____

Telephone # | Fax # (Optional) | E-Mail (Optional)

I have read the description of the Maine Environmental Leader Program and volunteer to participate. I have read the applicable regulatory sections in this guide, completed the associated self-audit checklists as indicated on the back of this page, and believe that I am in compliance with those regulations. I have also read the compliance/enforcement statement on the last page of this guide. I understand that DEP staff will contact me to arrange a facility visit to verify my findings.

_____

Facility Owner (printed) | (Signature) | (Date)

Note: More Information on the back of this form.

_____
Title

TYPE OF STATION (please check one):

Gasoline Sales Only (i.e. convenience store, no automotive repair) ◯

Gasoline Sales and Automotive Repair ◯

*If your facility also performs **automotive repair service** there are additional regulations which may apply to you. A summarized regulatory guide for automotive repair facilities is available by calling the Department's Small Business Technical Assistance Program at 1-800-789-9802 or 287-8550. You need to complete the checklists in both guides prior to submitting the application.*

I have completed the following self-audit checklists and read the following sections of the Environmental Leader Program guide and believe that I am in compliance with the following environmental regulations for my facility:

	Yes	Not Applicable
• Vapor Recovery		
• General Air Requirements	◯	◯
• Stage I Vapor Recovery	◯	◯
• Stage II Vapor Recovery	◯	◯
• Underground Tanks	◯	◯
• Aboveground Heating Oil Tanks	◯	◯

Please note: aboveground fuel storage tanks (ASTs) are regulated by the Board of Oil and Solid Fuel (BOSF) for those serving facility heating appliances and the State Fire Marshal's Office (SFMO) for storage of flammable and combustible fluids. Therefore, they are not fully addressed in this guide. For further information call the BOSF at (207) 624-8629 or the SFMO at (207) 624-8744.

I have read the compliance/enforcement statement on the last page of this guide. ◯

GENERAL AIR REQUIREMENTS

WHAT IS IT?

- Vapor control and recovery is a broad term used to describe the equipment and process that prevents gasoline vapors from being emitted from gasoline service stations. **Stage I Vapor Recovery** captures vapors from storage tanks which would be emitted during gasoline deliveries. **Stage II Vapor Recovery** captures vapors produced during refueling automobiles. **Ten gallon per minute nozzles** are gasoline dispensing nozzles that are designed to limit the flow of gasoline through the nozzle to no more than 10 gallons per minute.

WHO IS REGULATED?

GENERAL REQUIREMENTS FOR ALL GASOLINE SERVICE STATIONS

- The vapor control and recovery regulations apply to both underground and aboveground storage tanks. All gasoline stations, including those not required to have Stage I and Stage II, must keep records of the volume of gasoline sold so that monthly as well as annual throughputs can be calculated. These records must be kept on site for three years with only a few exceptions.

- All stationary gasoline storage tanks must be equipped with a submerged fill-pipe (drop-tube) which reduces the creation of vapor while the tank is being filled. The bottom of the fill-pipe must be submerged when the gasoline storage tank has six inches of product in it.

- U.S. Environmental Protection Agency regulations require all gasoline dispensing nozzles to be 10 gallons per minute nozzles by January 1, 1998. Stations that pump more than 10,000 gallons per calendar month must have had 10-gpm nozzles installed by July 1, 1996. *(Pumps dedicated to heavy-duty vehicles are exempt from the 10-gpm nozzle requirement. Vehicles which weigh more than 8,500 pounds GVW or more than 6,000 pounds curb weight or with basic vehicle frontal area of more than 45 square feet are heavy duty vehicles according to the EPA definition.)*

WHY IS THE ACTIVITY REGULATED?

- Unloading gasoline from tank trucks into service station storage tanks and fueling cars and trucks causes gasoline vapors to escape into the air. These vapors contain Volatile Organic Compounds (VOC) that contribute to the formation of ground level ozone, a colorless and odorless gas that can irritate lungs. High concentrations of ground level ozone can damage human lung tissue and are known to cause plant damage. Vapor recovery systems prevent the vapors from escaping into the air and

contributing to pollution. Both Stage I and Stage II systems help the State of Maine reach national goals for the reduction of VOC emissions.

- The 10-gpm nozzles will prevent "spit-back" of gasoline while filling a car's gas tank. This will insure that vapor control systems are not overwhelmed, and that liquid gasoline is not accidentally forced out of the fuel tank and onto the ground or into the vapor control system.

REGULATORY REFERENCES

- **Regulation citation and contact**

  Maine Chapter 118, Gasoline Dispensing Facilities Vapor Control

  Contact: DEP, Bureau of Air Quality – 287-2437

  Federal 40 CFR, 80.22(j), 10 GPM Nozzles

Please note: This document is only a guide. Readers are encouraged to review all applicable statutes and regulations.

COMPLIANCE CHECKLIST

Please review the following items relative to your operation. Any "no" response indicates areas where your facility is in need of improvement; "NA" stands for "not applicable." Please use this checklist as a guide for addressing such issues prior to applying for the Maine Environmental Leader Award.

	YES	NO	NA
Nozzles comply with the EPA dispensing rate requirements (10 gallons per minute by January 1, 1998 for stations with less than a 10,000 gallon per month throughput)	◯	◯	◯
Monthly and annual gasoline throughputs are recorded and records are kept on site.	◯	◯	◯

BEYOND COMPLIANCE RECOMMENDATIONS

- Ensure that station personnel are familiar with the requirements of Vapor Control and Recovery (Chapter 118) and know what to do if a problem is discovered.

- Use Stage I Vapor Recovery even if you have less than 10,000 gallons per month throughput.

- Conduct regular preventive maintenance inspections.

- Install 10-gpm nozzles before your station is required.

REFERRALS AND PUBLICATIONS FOR ADDITIONAL INFORMATION

For more information, contact a Maine DEP regional air quality specialist at::

Augusta	287-2437	Bangor	941-4570
Portland	822-6300	Presque Isle	764-0477

- A Certified Tank Installer, or the Maine Oil Dealers Association at 729-5298. A list of Certified Tank Installers can be obtained by calling the Maine Department of Environmental Protection, Bureau of Remediation and Waste Management at 287-2651.

Additional information can be obtained from publications of the:

- Steel Tank Institute, 570 Oakwood Road, Lake Zurich, IL 60047 (847) 438-8265 www.steeltank.com

- Petroleum Equipment Institute, PO Box 2380, Tulsa, OK 74101 (918) 494-9696 Publication PEI/RP300-97 www.peinet.org

- California Air Resources Board, Compliance Division, Compliance Assistance Program, PO Box 2815 Sacramento, CA 95182, Stage I and Stage II Manuals www.arb.ca.gov/vapor

- Information on 10-gpm nozzle requirements can be obtained from the USEPA “Fuel Dispenser Flow Rate Regulation [40 CFR §80.22(j)] Questions and Answers Sheet, November 3, 1995.” www.epa.gov/oms/regs/evap/spitback.txt

STAGE I VAPOR RECOVERY

WHAT IS IT?

- Stage I Vapor Recovery systems, required at both aboveground and underground storage tanks, reduce and capture vapors when gasoline is delivered to service stations. As described in the previous section, all stationary gasoline storage tanks must be equipped with a submerged fill-pipe (drop-tube) to reduce the release of vapors while the tank is being filled. The bottom of the fill-pipe must be submerged when the gasoline tank has six inches of product in it. Service stations that have had a monthly throughput greater than 10,000 gallons since June 1993, must use Stage I Vapor Recovery to exchange vapors in the storage tank with the liquid gasoline in the tank truck during deliveries.

- Coaxial fittings are often used for retrofitting existing tanks. They have a smaller diameter pipe inside the standard tank opening. The vapors are returned to the tank truck through the space around the small fill-pipe. "Two point" systems have a fill-pipe and a vapor return pipe on each tank. "Manifold" systems have one vapor return pipe connected to several tanks. Both the station owner/operator and the truck driver are responsible for ensuring the vapor recovery system is in good working order and is being used during deliveries. The vapors are carried by the truck back to the gasoline terminal where they are processed.

WHO IS REGULATED?

- Stations that pump or have ever pumped more than 10,000 gallons per month (based on any calendar month beginning June 1993) must comply with the conditions in the previous section and must use Stage I Vapor Recovery fittings.

WHY IS THE ACTIVITY REGULATED?

- Gasoline contains Volatile Organic Compounds (VOC) that contribute to the formation of ground level ozone, a colorless and odorless gas. High concentrations of ground level ozone can damage human lung tissue and are known to cause plant damage. Installing Stage I Vapor Recovery helps minimize the formation of ground level ozone by reducing the emission of VOC. Stage I used effectively throughout the State of Maine will prevent four tons of gasoline per day from turning into vapors.

REGULATORY REFERENCES

- **Regulation citation and contact**

  Maine Chapter 118, Gasoline Dispensing Facilities Vapor Control

  Contact: DEP, Bureau of Air Quality – (207) 287-2437

Please note: This document is only a guide. Readers are encouraged to review all applicable statutes and regulations.

COMPLIANCE CHECKLIST

Please review the following items relative to your operation. Any "no" responses indicate areas where your facility is in need of improvement; "NA" stands for "not applicable." Please use this checklist as a guide for addressing such issues prior to applying for the Maine Environmental Leader Award.

Stage I Vapor Recovery

	YES	NO	NA
Are all items in the General Requirement Compliance Checklist marked "YES"?	◯	◯	◯
Are manhole covers in good condition and color coded as to the contents of the storage tank?	◯	◯	◯
Are spill buckets free of product, water and solids?	◯	◯	◯
Are product fill caps and gaskets in good working order?	◯	◯	◯
Vapor recovery caps, gaskets, and poppets are in good working order?	◯	◯	◯
Coaxial vapor recovery drop-tube rim is not damaged or deformed?	◯	◯	◯
Nozzle flow rates have been tested and are less than 10-gpm?	◯	◯	◯

BEYOND COMPLIANCE RECOMMENDATIONS

The following is a list of recommendations (not legal requirements) where your facility could exceed the minimum requirements, thereby further protecting human health and the environment.

- Ensure station personnel are familiar with requirements of Stage I Vapor Recovery (Chapter 118) and know what to do if a problem is discovered.
- Conduct regular preventive maintenance inspections.
- Make sure delivery persons know you want them to use Stage I. Observe the delivery; look for liquid and/or vapor leaks.

- Make sure that delivery truck's tank tightness test has not expired (look for the letters "DEP" followed by the test date on the bulkhead of the tank).

REFERRALS AND PUBLICATIONS FOR ADDITIONAL INFORMATION

For more information, contact a Maine DEP regional air quality specialist at::

Augusta	287-2437	Bangor	941-4570
Portland	822-6300	Presque Isle	764-0477

- A Certified Tank Installer, or the Maine Oil Dealers Association at 729-5298. A list of Certified Tank Installers can be obtained by calling the Maine Department of Environmental Protection, Bureau of Remediation and Waste Management at 287-2651.

Additional information can be obtained from publications of the:

- Steel Tank Institute, 570 Oakwood Road, Lake Zurich, IL 60047 (847) 438-8265 www.steeltank.com
- Petroleum Equipment Institute, PO Box 2380, Tulsa, OK 74101 (918) 494-9696 Publication PEI/RP300-97 www.peinet.org
- California Air Resources Board, Compliance Division, Compliance Assistance Program, PO Box 2815 Sacramento, CA 95182, Stage I and Stage II Manuals www.arb.ca.gov/vapor
- Information on 10 gpm nozzle requirements can be obtained from the USEPA "Fuel Dispenser Flow Rate Regulation [40 CFR §80.22(j)] Questions and Answers Sheet, November 3, 1995." www.epa.gov/oms/regs/evap/spitback.txt

- ***STAGE II VAPOR RECOVERY***

WHAT IS IT?

- Stage II captures the gasoline vapors released into the air when a car's gas tank is filled. Stage II systems collect these vapors and return them to the service station's storage tank. This prevents vapors from being released as air pollution. Two main types of Stage II systems exist: "balance systems" and "vacuum-assist systems." Balance systems use a nozzle with a "boot", a flexible rubber hose that surrounds the nozzle spout to make a tight fitting seal around the vehicle's gas tank opening. As the gasoline enters the tank, an equal volume of the vapor is pushed out though the boot and either into the station's storage tank or sent to a vapor processor. Vacuum-assist systems use a nozzle that has a ring of small holes about a half-inch from the end of the spout. Gasoline flows out through a small tube in the center of the spout, and the vapors are drawn by a vacuum pump through the ring of holes and back to the storage tank or vapor processor. Vacuum assist nozzles have little or no "boot" at all, and are being used widely in new Stage II installations. An additional benefit of the system is the elimination of gasoline odors for the consumer.

- The gasoline vapors in the storage tank are periodically collected by an off loading tank truck through the truck's Stage I equipment and transported back to a gasoline terminal and processed.

  The Stage II vapor controls must be certified by the California Air Resources Board ("CARB"), and must be properly installed and maintained according to the requirements in the CARB "Executive Order" specific to the system. The manufacturer or distributor of the equipment should be able to provide the CARB documentation.

  Within 30 days after the Stage II system has been installed, the system must be tested to ensure that it is functioning correctly and registered with the DEP. The tests check to see if the gasoline vapors from the automobile's tank are reaching the gasoline storage tanks or the vapor processor. The system installer or manufacturer can give you advice on which tests need to be performed. The tests must be repeated every 5 years or after major repairs, replacement, or modification.

WHO IS REGULATED?

- Stage II vapor recovery must be installed by any gasoline dispensing facility located in York, Cumberland or Sagadahoc County whose annual throughput exceeded 1 million gallons of gasoline in 1994 or any calendar year thereafter. Stage II vapor recovery must be installed, tested and operating by November 15, 1996. The requirement to have and use Stage II vapor recovery continues even if the annual throughput of the station later falls below 1 million gallons per year.

WHY IS THE ACTIVITY REGULATED?

- Gasoline contains Volatile Organic Compounds (VOC) that contribute to the formation of ground level ozone, a colorless and odorless gas. High levels of ground level ozone can damage human lung tissue and cause plant damage. Stage II vapor recovery helps minimize the formation of ground level ozone by reducing the release of VOC and helps the State of Maine reach national goals for the reductions of VOC emissions. Maine's three southern counties continue to experience ground level ozone concentrations that are considered unhealthy.

REGULATORY REFERENCES

- **Regulation citation and contact**

  Regulation: Chapter 118, Gasoline Dispensing Facilities Vapor Control
  Contact: Bureau of Air Quality, Southern Maine Regional Office 822-6300

Please note: This document is only a guide. Readers are encouraged to review all applicable statutes and regulations.

COMPLIANCE CHECKLIST

Please review the following items relative to your operation. Any "no" responses indicate areas where your facility is in need of improvement. Please use this checklist as a guide for addressing such issues before applying for the Environmental Leader Award.

Stage II Vapor Recovery

	YES	NO	NA
Are all items in the General Requirements and the Stage I Compliance checklist marked "YES"?	◯	◯	◯
Is Stage II properly installed and tested?	◯	◯	◯
Do you conduct daily self-inspections of nozzles, bellows (including bellows spring if applicable), hoses (kinks, flat spots, holes), and any other high-wear components including faceplate, check valve, and automatic shut-off?	◯	◯	◯
Are hoses proper length, and is the retractor (if applicable) working properly?	◯	◯	◯
Are all tank caps, poppets, and gaskets in good condition?	◯	◯	◯
Is the vapor pump (assist systems only) operating with proper vapor/gas ratio?	◯	◯	◯
Are visual checks being conducted for vapor emissions around equipment?	◯	◯	◯

	YES	NO	NA
Is there a person on site during business hours trained in the operation and maintenance of the Stage II vapor recovery system?	◯	◯	◯
Is a list of significant defects handy for station personnel?	◯	◯	◯
Are “out of service” tags handy in order to tag out dispensers with significant defects?	◯	◯	◯
Are “customer instructions” signs for use of the Stage II system posted at the dispensers?	◯	◯	◯
Are regular inspections as recommended by the manufacturer/installer conducted and documented?	◯	◯	◯

BEYOND COMPLIANCE RECOMMENDATIONS

The following is a list of recommendations (*not legal requirements)* where your facility could exceed the minimum requirements, thereby further protecting human health and the environment.

- Conduct regular preventive maintenance.
- Test your systems more frequently than required by the vapor control regulation.
- Actively educate your customers on how to use the new nozzle.

REFERRALS AND PUBLICATIONS FOR ADDITIONAL INFORMATION

For more information, contact the Department of Environmental Protection’s Air Bureau in Augusta at 287-2437 or in Portland at 822-6300, a Certified Tank Installer, or the Maine Oil Dealers Association at 729-5298. A list of Certified Tank Installers can be obtained by calling the Maine Department of Environmental Protection, Bureau of Remediation and Waste Management at 287-2651.

Additional information can be obtained from publications of the:

- Steel Tank Institute, 570 Oakwood Road, Lake Zurich, IL 60047 (847) 438-8265 www.steeltank.com
- Petroleum Equipment Institute, PO Box 2380, Tulsa, OK 74101 (918) 494-9696 Publication PEI/RP300-97 www.peinet.org

- California Air Resources Board, Compliance Division, Compliance Assistance Program, PO Box 2815 Sacramento, CA 95182, Stage I and Stage II Manuals www.arb.ca.gov/vapor

- Technical Guidance – Stage II Vapor Recovery Systems for the Control of Vehicle Refueling Emissions at Gasoline Dispensing Facilities, Volume II (EPA – 450/3 – 91 – 022b), National Technical Information Services, 5285 Port Royal Road, Springfield, VA 22161 (703) 605-6000 www.ntis.gov

- Information on 10-gpm nozzle requirements can be obtained from the USEPA "Fuel Dispenser Flow Rate Regulation [40 CFR §80.22(j)] Questions and Answers Sheet, November 3, 1995." www.epa.gov/oms/regs/evap/spitback.txt

UNDERGROUND TANK ISSUES

WHAT IS IT?

- An underground oil storage tank (UST) is a container that stores "oil", including gasoline, diesel fuel, kerosene, heating oil, heavy oil, or non-hazardous waste oil, located such that 10% or more of the tank is underground. A gas station that contains one or more USTs, piping, and associated dispensing facilities, is an underground oil storage facility (UST facility). A facility with aboveground tanks is also regulated as an UST facility if it has underground piping that contains 10% or more of the facility's overall volume capacity.

WHO IS REGULATED?

- Anyone who owns or operates an UST facility, regardless of its size.

WHY IS THE ACTIVITY REGULATED?

- USTs have been traditionally built out of bare metal that, over time, corrodes, causing fuel to leak into adjacent soils and groundwater supplies. Leaking tanks and piping have contaminated thousands of tons of soil and millions of gallons of groundwater in Maine. Much of the groundwater contamination has impacted residential drinking water wells. Cleaning up contamination from UST facilities is very difficult, slow, and costly.
  Beginning in the 1980s, Maine law and regulations were developed to prevent and minimize the risk to the environment and public health posed by UST facilities. Bare steel tanks and piping are now prohibited. Current rules require registration, corrosion protection, certified installation, secondary containment with electronic leak detection, and annual inspection and maintenance of all UST equipment.

REGULATORY REFERENCES

- **Regulation citation and contact**

  Regulation: State law 38 M.R.S.A., Sections 561-570; and Department Rules for Underground Oil Storage Facilities, "Chapter 691"

  Contact: DEP Bureau of Remediation and Waste Management, Division of Oil and Hazardous Waste Facilities Regulation, (207) 287-2651

Please note: This document is only a guide. Readers are encouraged to review all applicable statutes and regulations.

SUMMARIZED REGULATORY REQUIREMENTS

GENERAL FACILITY REQUIREMENTS

- All USTs, piping, and related equipment must be registered with DEP and annual registration fees paid. Amended registrations must also be filed within ten (10) days whenever there is a change in facility registration information, such as ownership or operational status. A Maine Certified Installer or Inspector must inspect UST facilities annually for proper operation of leak detection, overfill and spill prevention equipment. Maine Certified Tank Installers (CTIs) must perform all repairs to UST facilities. Information is available from the DEP Bureau of Remediation and Waste Management (207) 287-2651 and at www.state.me.us/dep/rwm.

- All new and replacement USTs must:

  ✓ be constructed of fiberglass, cathodically protected steel, or other non-corrosive materials approved by DEP, and

  ✓ include secondary containment and continuous electronic monitoring of the interstitial space for all tanks, piping, and ancillary equipment

  ✓ be installed by a Certified Tank Installer (CTI)

  ✓ be inspected annually for proper operation of all facility equipment. Passing inspection results must be submitted on a DEP form by July 1, 2003 and annually thereafter.

- Any evidence of a possible leak or discharge from an UST facility must be reported to DEP as soon as possible, but no later than within **24 hours**. Examples of evidence of a leak include unexplained fluctuations in product inventories, accumulation of

water in a tank or piping sump, failure of precision tests, actual discovery of leaks or discharges and others included in, but not limited to, Chapter 691(5)(D) and 38 M.R.S.A., §564(2-A)(H)

- All surface discharges or spills must be reported to DEP **within 2 hours**, except:

  ✓ Discharges of 10 gallons or less that occur above the ground surface on an impervious surface such as asphalt or concrete and do not reach groundwater or surface waters of the state do not need to be reported to DEP provided the facility maintains a written log documenting such discharges and the discharges are fully cleaned up within 24 hours of discovery. This applies only to discharges associated with an underground oil storage facility.

- **Spills, leaks, or discharges are to be reported to the DEP at 1-800-482-0777**, statewide, 24 hours per day, 7 days per week.

- Owners/operators of UST facilities with a petroleum discharge may be eligible for coverage of clean up costs by the Groundwater Oil Cleanup Fund. Applicants must apply within 180 days of reporting the discovered discharge. Deductibles assessed under the Fund are based on the number of facilities owned, and on compliance with applicable UST laws and regulations.

  References: 38 M.R.S.A., §§541 – 570; Chapter 691(5)(D) (evidence of a leak; leak or discharge reporting requirements)

CORROSION PROTECTION (for facilities equipped with cathodic protection)

- All cathodically protected (CP) USTs and piping systems must be tested annually by a CTI or a Cathodic Protection Tester. Results must be at least –0.85 volts(-0.86, -0.87, -0.88…) along the tank top and piping run.

- CP test results must be submitted to DEP annually by July 1.

- A logbook of annual test results for CP systems must be kept on site.

- All repairs on a CP system must be performed by a Certified Tank Installer.

- Tanks or piping that fail to achieve minimum corrosion protection (-0.85 v) must be removed.

  References: 38 M.R.S.A., §564.2-A; Chapter 691.5.D (requirements for galvanic and impressed current cathodic protection systems), Appendix A (cathodic protection monitoring)

LEAK DETECTION

For facilities with single walled, motor fuel USTs and double walled, manually monitored USTs installed before 1991:

- Daily product inventory must be collected each day fuel is added or removed from the USTs.
- Product levels in the USTs must be measured to the 1/8 inch, converted to gallons with a 1/8 inch conversion chart, and kept at the facility for three years. Measurements must be taken both before and after deliveries of products to the USTs.
- Water levels in the USTs must also be measured to the 1/8 inch each day that fuel is added to or removed from the USTs.
- Daily inventory must be reconciled monthly to look for evidence of a possible leak, and any unexplained loss or gain that exceeds 1% of the total gallons pumped in that 30-day period must be reported to DEP.
- A Statistical Inventory Analysis (SIA) must be performed annually on inventory data, with results submitted annually to DEP by October 1. Leak detection rates of 0.1 gallons per hour (gph) must be achieved to meet both SIA and leak detection requirements.
- All in-line leak detectors for pressurized systems must be tested annually, maintained, recalibrated and repaired as necessary, and a log of such activities kept on site for three years. All necessary repairs must be performed within 30 days, by a CTI or Manufacturer's representative.
- Groundwater monitoring wells installed for leak detection for waste oil USTs must be sampled weekly.
- Waste oil USTs must have leak detection and overfill and spill prevention by December 22, 1998.
- Manually monitored interstitial tank and piping spaces must be sampled weekly and a log book of inspections kept on site for three years.

NOTE: Tanks that install an Automatic Tank Gauge (ATG) able to detect a leak of 0.1 gph at least once every 30 days must register the ATG and submit a copy of the set-up report to the Department. Tanks with approved ATGs are exempt from daily inventory and SIA requirements.

For all new and replacement UST facilities:

- All new and replacement facilities must provide secondary containment for all facility components routinely containing product including USTs, piping, and below ground equipment.

- All interstitial spaces in the above referenced components must be continuously electronically monitored.

- All in-line leak detectors for pressurized systems must be tested annually, maintained, recalibrated, and repaired as necessary, and a log of such activities kept on site for three years. All necessary repairs must be performed within 30 days by a CTI or manufacturer's representative.

- All continuous electronic leak detection monitoring systems must be tested annually, maintained, recalibrated and repaired as necessary, and a log of such activities kept on site for three years. Any repairs necessary must be performed within 30 days by a CTI, a manufacturer's representative, or a person trained by the manufacturer.

References: 38 M.R.S.A., §564.1-A, 564.2-A; Chapter 691.5.B (leak detection), 5.C. (retrofitting requirements), 5.D. (daily inventory requirements; statistical inventory analysis; in-line leak detectors; leak detection equipment; manual interstitial space monitoring), 7.C (waste oil leak detection), Appendix D, E (installation requirements for new USTs and piping)

SPILL PREVENTION/OVERFILL PROTECTION

- USTs must have a liquid tight spill bucket with a minimum capacity of three gallons for each tank fill, which is sealed around the fill pipe to collect any spillage during product delivery.

- USTs must have overfill prevention equipment that will automatically shutoff flow into the UST when the UST is no more than 95 percent full, or alert the transfer operator when the UST is no more than 90 percent full by restricting flow into the UST or triggering a high-level audible alarm.

- All overfill and spill prevention equipment must be maintained in good, working order. Overfill and spill prevention alarms and shutoff systems must be tested annually, recalibrated and repaired as necessary, and a log of such activities kept on site for three years. Spill buckets must be inspected and, if necessary, cleaned before each product delivery.

ANNUAL INSPECTION AND MAINTENANCE OF UST EQUIPMENT – All facilities

- A facility owner must have all UST facility equipment inspected annually for proper operation, and any deficiencies must be corrected.

- A Certified Tank Installer or Certified Tank Inspector must perform the inspection and make necessary repairs.

- The facility owner must submit a passing inspection report to DEP (on a form provided by DEP) by July 1, 2003 and annually thereafter.

References: 38 M.R.S.A., §564(1-B), 565(1)(B-1); Chapter 691(5)(D) (overfill & spill prevention)

COMPLIANCE CHECKLIST

Please review the following items relative to your operation. Any "no" responses indicate areas where your facility is in need of improvement. Please use this checklist as a guide for addressing such issues prior to applying for the Maine Environmental Leader Award. Note: Because of their required removal by October 1, 1997, single walled bare steel USTs are not addressed in these materials or included in the program.

Underground Storage Tanks

CORROSION PROTECTION

If your facility is equipped with Cathodic Protection, have you:	YES	NO	NA
Performed required annual CP tests?	◯	◯	◯
Received passing results along tank top and piping(-.85 volts or greater [-.86, -.87, -.88 etc.])?	◯	◯	◯
Maintained a log book of annual test results?	◯	◯	◯

SPILL PREVENTION

Have you:	YES	NO	NA
Regularly inspected and maintained fill/spill buckets to keep them free of water, fuel and foreign matter?	◯	◯	◯

LEAK DETECTION

If your facility consists of single walled tanks, or double walled manually monitored tanks, have you:

For each day fuel is added to/removed from the tank, collected daily product inventory to the 1/8 inch, converted it to gallons with an 1/8 inch conversion chart, and kept the data at your facility for three years?	◯	◯	◯

	YES	NO	NA
Measured and recorded water levels in your tanks while conducting inventory?	◯	◯	◯
Reconciled your product inventory daily and monthly, and reported any instances where gains or losses were greater than 1% of the total gallons pumped for the month?	◯	◯	◯
Conducted an annual Statistical Inventory Analysis (SIA) meeting leak detection rates of 0.1 gallons per hour (gph) or less?	◯	◯	◯
Performed annual inspections and testing of in-line leak detectors if you have pressurized piping, and kept records of necessary maintenance and recalibrations?	◯	◯	◯
If your facility consists of double walled, electronically monitored tanks and piping, have you:			
Maintained your electronic leak detection systems in good, working order?	◯	◯	◯
Performed annual testing, calibration, and maintenance of electronic:			
interstitial leak detection systems?	◯	◯	◯
tank product monitoring systems?	◯	◯	◯
Sump monitoring systems?	◯	◯	◯
Kept a log of all work performed on the above systems for the last three years?	◯	◯	◯

OVERFILL PROTECTION

Have you:	YES	NO	NA
Installed, regularly inspected to insure it's working, and maintained one of the following:			
an electronic overfill alarm in hearing range of fuel deliverer?	◯	◯	◯
a vent ball float valve in the tank vent pipe?	◯	◯	◯
a flapper valve shut off device in the fill pipe?	◯	◯	◯
Kept a record of all inspections and maintenance of the above devices?	◯	◯	◯

(If your response is no, see the Spill Prevention/Overfill Protection section of the Reference Guide.)

GENERAL FACILITY

Have you:	YES	NO	NA
Maintained accurate registrations and paid annual fees for all underground tanks at your facility?	◯	◯	◯
Removed/abandoned all out-of-service underground tanks at your facility according to the proper procedures and within statutory deadlines?	◯	◯	◯
Properly vented all underground tanks?	◯	◯	◯
Installed fill-drop tubes to within six inches of the tank bottom?	◯	◯	◯
Reported any evidence of a possible leak including those listed in Chapter 691.5.D?.	◯	◯	◯
Maintained a record of any surface spills on site less than 10 gallons that occurred on impervious surfaces such as asphalt or concrete, and reported any surface spills that were of more than 10 gallons?	◯	◯	◯
Reported all surface spills that occurred on permeable surfaces	◯	◯	◯
Had an annual inspection of all UST equipment done by a qualified person, and submitted a passing inspection report to DEP?	◯	◯	◯

BEYOND COMPLIANCE RECOMMENDATIONS

The following is a list of recommendations (not legal requirements) where your facility could exceed the minimum requirements, thereby further protecting human health and the environment.

- Replace single walled tanks with double walled electronically monitored tanks.
- Replace single walled piping with double walled electronically monitored piping.
- Upgrade double walled, manually monitored tanks with continuous electronic monitoring.
- Install liquid tight dispenser sumps under all dispensers (including suction pumps), with continuous electronic monitoring.
- Conduct monthly facility inspection and maintenance programs that include all aspects of the facility: dispensers, electronics, sumps, etc.
- Install hydrostatic leak detection (i.e. wet sensor) that monitors primary and secondary walls.

- Keep a spill kit on site (sorbent pads, loose sorbent material, overpack drum, etc.)

- Develop a Spill Prevention Control and Countermeasure Plan regardless of your facility's fuel capacity.

REFERRALS AND PUBLICATIONS FOR ADDITIONAL INFORMATION

For more information on the topics summarized in this reference guide, call the Maine DEP's Bureau of Remediation and Waste Management, (207) 287-2651 and review the sections of regulations (Chapter 691) and statute cited.

ABOVEGROUND HEATING OIL TANKS

WHAT ARE THEY?

Aboveground heating oil storage tanks (ASTs) are those fuel tanks with a capacity of less than 660 gallons located more than 90% above ground and used to provide fuel to a heating system.

NOTE: ASTs are regulated by the Board of Oil and Solid Fuel (BOSF) and the State Fire Marshall's Office (SFMO), and therefore are not fully addressed in this guide. For more information on AST requirements, please see the Regulatory References Section below and call the appropriate agency.

WHY ARE THEY REGULATED?

Even though Maine DEP rules do not apply to the design and installation of aboveground heating oil tanks (typically 275 gallon tanks), DEP responds and supervised the clean up of several hundred spills each year from these tanks. Most result in soil and basement clean-ups but several spills each year have contaminated drinking water wells. The Maine DEP has embarked on a public outreach effort to attempt to minimize or eliminate AST heating oil spills. Included in this section is a copy of an Observation Checklist from a pamphlet jointly produced by the Maine Department of Environmental Protection, Maine Oil Dealers Association and the Board of Oil and Solid Fuel.

REGULATORY REFERENCES

- **Regulation citation and contact**

Regulation: 38 M.R.S.A. 543, 550, Chapter 691 Section 5.D (evidence of a leak; leak or discharge reporting requirements)

Contact: DEP's Bureau of Remediation and Waste Management, Division of Oil and Hazardous Waste Facilities Regulation 287-2651. ASTs that supply fuel to facility heating appliances are regulated by the Board of Oil and Solid Fuel, (207) 624-8608. ASTs that store flammable and combustible fluids are regulated by the State Fire Marshall's Office, (207) 626-8744.

SUMMARIZED REGULATORY REQUIREMENTS

Any evidence of a leak or discharge of oil from a storage tank (Chapter 691.5.D [evidence of a leak]) and 38 M.R.S.A., §564.2-A.H.) must be reported to DEP **within 24 hours**.

- All surface discharges of oil must be reported to DEP **within 2 hours. Spills, leaks, or discharges are to be reported to the Department at 1-800-482-0777**, statewide 24 hours per day, 7 days per week.

BEYOND COMPLIANCE RECOMMENDATIONS

The following is a spill prevention checklist based on common tank and piping failures and spills. Unlike the other checklists in this guidebook, a *"yes" means that something may be wrong*. If you find that any of your answers to this checklist are "yes", please call your licensed oil heat technician for a more detailed inspection and corrective measures. Your actions can help protect human health and the environment. To report a spill call the DEP at 1-800-482-0777.

Spill Prevention Checklist

Fuel Oil Tanks	YES	NO
Are the tank legs unstable or on an uneven foundation?	◯	◯
Do you see rust, weeps, wet spots, or excessive dents on the tank's surface?	◯	◯
Are there any drips or signs of leakage around the oil filter or valves?	◯	◯
Do the oil lines run either under concrete or aboveground without being encased in a protective tubing?	◯	◯
Are there any threats of snow or ice falling on the oil tank or the filter?	◯	◯
Are there any signs of the tank's vent being clogged or blocked by ice or snow? (Screened vents are available to prevent insect nest problems)	◯	◯
Is the overfill whistle obstructed, or silent when the tank is being filled? (It should whistle)	◯	◯
Are there any signs of spills around the fill-pipe?	◯	◯

	YES	NO
Is the tank gauge cracked, stuck or frozen? Do you see oil or staining around it?	◯	◯
Is your tank more than 25 years old?	◯	◯
Is your outside tank a dark color? (It should be painted a light color to minimize corrosive condensation inside the tank.)	◯	◯

ENFORCEMENT/COMPLIANCE

As part of the Environmental Leader Program for Maine gasoline stations, facility owners and operators will complete self-audit checklists to determine if their facilities are in compliance with the appropriate statutes and regulations. DEP staff will then visit the facility to verify these findings. If violations of environmental statutes or regulations are discovered, the Department will provide guidance and a reasonable time frame for correcting violations, depending on the severity of the violations.

The Environmental Leader Program does not provide amnesty from enforcement action. However, the Department will strongly consider the amount of cooperation of the owner or operator in correcting violations. Re-inspections will be conducted to verify ongoing compliance for Environmental Leader facilities. Correction of any discovered violations will be handled in the same manner outlined above. If violations are discovered, enforcement action may include revocation of the Environmental Leader Award.

DISCLAIMER

The purpose of this guide is to provide general information and guidance only. It does not constitute a complete restatement of the law, nor is it intended to provide legal advice. Readers are strongly advised to review all applicable regulations and statutes directly and/or consult an attorney for specific legal information that pertains to their facilities.

The Environmental Leader Program is one phase of the Environmental Excellence Campaign encouraged by the Maine Department of Environmental Protection.